



**Department of Physics**  
**Gauhati University**  
**Guwahati 781014, Assam, INDIA**

**Notice: Inviting Quotations**

Ref: PHY/AD/2015/03

Date: 18/01/2017

Sealed quotations from reputed manufacturers/authorized dealers/suppliers are invited for supply and installations of the following items complete in all respect to the Department of Physics, Gauhati University under the SERB, DST sponsored project (EMR/2015/001492). The items should be of very high quality and ready to use for research grade experiments. The sealed quotations are to be submitted to Dr. Abhijit Das, Assistant Professor, Department of Physics, Gauhati University, Guwahati 781014. The quotations may be submitted till 3<sup>rd</sup> February 2017 14:00 hrs. The quotations will be opened on the same day at 15.30 hrs.

Sl. No.	Items	Specifications
1	Ferro electric liquid crystal spatial light modulator	SXGA resolution (1280×1024 pixels) with a 13.62 μm pixel pitch Reflective microdisplay with 0.88" / 22.4mm diagonal 24-bit native colour depth (8-bit per colour) Optional dither algorithms to increase greyscale resolution Switching time - 40 μs Refresh rate up to 85Hz at full colour depth Analogue (VGA) and Digital Video (DVI) inputs 96% fill factor Remote connection of microdisplay(s) via LVDS connection (2.5 m) Dual head configuration Different display addressing sequences available for diverse applications USB 2.0/RS-232 interface for system control
2	CCD Camera	Resolution (H × V pixels): 1280 px × 1024 px Pixel Size horizontal/vertical: 4.8 μm x 4.8 μm Frame Rate > 200 fps Mono/Color: Color Interface: USB 3.0 Video Output Format: Bayer BG 8, Bayer BG 10, Bayer BG, 10 Packed Pixel Bit Depth: 10 bits Housing: box Lens Mount: C-mount Digital Input: 1 Digital Output :1 General Purpose I/O: 2 Power Requirements Via USB 3.0 interface Sensor Type CMOS Sensor Size (mm) 6.14 mm × 4.92 mm

4	DPSS Laser (488 nm)	<p>Power (mW): Minimum 20  Wavelength <math>\lambda</math> (nm): 488  Transverse Mode: TEM<sub>00</sub>  1/e<sup>2</sup> Beam Diameter (mm): 0.70 ± 0.05  Beam Ellipticity: 1.1:1  Beam quality (M<sup>2</sup>) &lt;1.2  Polarization &gt; 100:1  Power Stability (%): ± 2 over 2 hours, ambient ± 2°C  Beam Pointing Stability &lt; 30 μrad  Amplitude Noise (20 Hz to 1 MHz) &lt; 0.75% rms  Operating Environmental Temperature: - 10°C to 40°C  Non-Operating Environmental Temperature: -10°C to 60°C  Interface: RS-232 or Analog  Input Voltage: 100 to 240 Vac ±10%  Input Frequency: 50 to 60 Hz, Single Phase</p>
5	Vibration isolation table with active isolator and air compressor	<p>Grade: Research Grade  Dimension (WxLxH): 4'×10'×12.2"  Flatness: ±0.1 mm (±0.004") Over Any 1 m<sup>2</sup>  Construction: Symmetric Isotropic Construction in all axes  Top and Bottom Plates: 5 mm (3/16") Thick Stainless Steel, 430 Grade Working Surface  Core Construction: High-Density Plated Steel Honeycomb, 0.26 mm Thick  Side Panels: Rigid Steel Box Section  Side Trim Finish: Matte Black Linoleum, 2 mm Inset from Table Surface  Top Surface Finish: Machined Matte Finish  Mounting Holes:  Threads and Spacing: M6 Tapped Holes on 25 mm (1") Centers  Distance from Edge to First Holes: 12.5 mm from Table Edge on all Sides  Maximum Screw Depth: 25.4 mm (1.0") (23.5 mm for Outer Border Holes)  Maximum Dynamic Deflection Coefficient &lt;0.4 x 10<sup>-3</sup>  Maximum Relative Tabletop Motion: 0.14 nm (5.5 x 10<sup>-9</sup> in.)  Deflection Under Load (Stiffness) &lt;1.2 μm for a 150 kg Load  Optical Table Supports: Active Vibration Isolation  Active Vertical and Horizontal Vibration Isolating Supports  Height: 600 mm (23.6") Legs  Load Capacity (Four Legs): 2,500 kg  Self-Leveling Valves  Resonant Frequency:  Vertical: 1.25 Hz  Horizontal: 1.0 Hz  Vertical Transmissibility at 10 Hz- 32.5 dB (97.5%)  Horizontal Transmissibility at 10 Hz- -30 dB (97%)  Load Capacity- 2500 Kg  Air Compressor- Operating voltage 220 V @50Hz</p>

		<p>Delivery Pressure up to 8 Bar (116 PSI)  Air Tank Size 3.5 Liters  Integral Pressure Regulator and Filter  Noise: 30 dB at 1 m</p>
6	PC with dual monitor	<p>Processor: Intel Core i5 or above  Hard Disk Drive: 1TB GB SATA (7200 RPM), or higher  RAM: 4GB DDR3 (1×4GB) or higher  Operating System: Windows 10 Professional Downgrade to Win 7  Expansion slots: minimum 3  Parallel port  VGA Port for two monitor connection  DVI port  Minimum 4 USB 3.0  USB Business Slim Keyboard &amp; Mouse  Accessories: DisplayPort To VGA Adapter DisplayPort To VGA Adapter 2nd  Warranty: 3 Years OEM  Monitor: 2 Nos.18.5”  UPS: 1KVA</p>
7	Oscilloscope	<p>Bandwidth: Minimum 70 MHz  No of Channel : 2Nos.  Sample rate : Minimum 1GS/S on each channel  2.5k point record length on all channels  7 inch WVGA (800×480) Active TFT Color Display  34 automated measurements  Dual window FFT, simultaneously monitors both the time and frequency domains  Integrated Courseware feature  Dual channel frequency counter  Zoom Function  Autoset and signal auto-ranging  Multiple-language user interface  Connectivity  USB 2.0 host port on the front panel for quick and easy data storage  USB 2.0 device port on rear panel for easy connection to a PC  Warranty -5 years</p>

\*Gauhati University reserves the right to modify/cancel the requirements.

\*\*All terms and conditions will be as per Gauhati University rules, regulations and decisions.

## **Information to Bidders:**

### **1. Single Bids:**

(a) In case of single bid, quotations will have to be submitted in single bid, in a properly sealed cover; and the address of the firm submitting the quotation and the officer to whom the quotation is addressed, must appear distinctly on the sealed cover.

**NOTE: *The bid documents are not transferable and the firm's seal and signature of the authorized official must appear on all the papers and envelopes submitted.***

(b) The bid must mention the prices of all items asked for individually and then summed up at last i.e. basic price and other charges such as Packing, Freight, Insurance, Installation & Commissioning charge, VAT/Tax etc. as applicable;

(c) Annual Maintenance Contract (**AMC**) rate (after expiry of warranty period) is to be clearly indicated – preferably in both comprehensive and non-comprehensive terms, *failure to which the offer may not be considered even if it turns out to be at the lowest price.*

**(d) Details of the technical features of the offered equipment along with standard technical literature on each of the items offered**

(e) Dealership certificate on the offered products in case of dealer;

(f) List of reputed organizations/institutions, where similar orders have been executed (copies of the purchase/work orders may be enclosed);

(g) Details of nature and maximum period of **warranty** offered by the vendor

(h) After Sales Service: The name & address of the nearest available authorized service centre to Gauhati University, Guwahati, should be stated in the quotation.

**2. Rates should be quoted up to CIF Guwahati for imported items, and up to Gauhati University, Guwahati for others.**

*Note: Vague terms like “packing, forwarding, transportation etc. extra” without mentioning the specific amount will not be accepted. Such offers shall be treated as incomplete and rejected.*

Bidders shall indicate their rates in clear/visible figures as well as in words and shall not alter/overwrite in the quotation.

**3. Validity:** Quoted rates must be valid for **120 days**.

**4. Pre-installation requisites:** Pre-installation requisites (electrical/floor/space/air-conditioning etc.) if any should invariably be mentioned. Installation/training will be the full responsibility of the supplier/Indian agent.

**5. Genuine pricing:** Vendor is to ensure that quoted price is not more than the price offered to any other customer in India to whom this particular item has been sold, particularly to the Central and State Universities, IITs, Research Institutes and other Government organizations.

**6. Road permit, custom duty clearance should be taken care by the suppliers, with the DSIR certificates etc. may be provided from the University side if required.**

**7. Delivery:** (a) Delivery of goods at Gauhati University will have to be supplied within the agreed period from the date of issue of the Purchase Order.

(b) **Safe delivery of goods:** All aspects of safe delivery shall be the exclusive responsibility of the vendor. At the destination site, the cartons will be opened only in the presence of Gauhati University user/representative and vendor's representative and the intact position of the seal for not being tampered with, shall form the basis for certifying the receipt in good condition.

(c) **No part delivery:** No part shipment is acceptable.

8. **Quotation by fax/e-mail not acceptable:** The offers submitted by telex/telegram/fax/e-mail etc. shall not be considered. No correspondence will be entertained on this matter.

9. **Late and delayed tender:** Late and delayed tender will not be considered. In case any unscheduled holiday occurs on prescribed closing/opening date the next working day shall be the prescribed date of closing/opening.

10. **Conditional tenders not acceptable:** Conditional tenders shall not be accepted on any ground and shall be rejected straightway. In other words, printed conditions mentioned in the tender bids submitted by vendors will not be binding on Gauhati University. *All the terms and conditions for the supply, payment terms, penalty etc. will be as per Gauhati University rules, regulations and decisions and no change in the terms and conditions by the vendors will be acceptable.*

11. **Specifications:** It must be ensured that the offers are strictly as per our specifications. A quotation has to be supported with the printed technical leaflet/literature (wherever applicable) and the specifications mentioned in the quotation must be reflected/supported by such printed technical leaflet/literature model quoted/tendered specifications should **invariably be highlighted** in the leaflet/literature for easy reference.

12. **Enquiry during the course of evaluation not allowed:** No enquiry shall be made by the bidder(s) during the course of evaluation of the tender till final decision is conveyed to the successful bidder(s). However, the committee/authorized representative and office of the Gauhati University can make any enquiry/seek clarification from the bidders. In such a situation, the agency shall extend full cooperation. The bidders can also be asked to arrange demo of the offered items, as such the bidders have to be ready for the same.

13. Only technically qualified quotations will be considered for further action. The acceptance of the quotation will rest solely with the undersigned and the Gauhati University is not bound to accept the lowest quotation and reserves the right to reject or partially accept any or all the quotations received without assigning any reasons.

14. **Application Law:** The contract shall be governed by the laws and procedures established by Govt. of India and subject to exclusive jurisdiction of Competent Court and Forum in Guwahati, India only.

**Abhijit Das**  
**Principal Investigator**

**Head**  
**Department of Physics**

**Copy to:**

1. Treasurer, Gauhati University
2. Deputy Registrar, for publication in the website
3. Office copy for record
4. Notice Board